

OH 1

5.1 #61 $P = 10\ 000$ annual rate 6%

$$0.005 = r = \frac{0.06}{12} \quad \begin{matrix} \text{monthly rate} \\ (\text{rate per compounding period}) \end{matrix}$$

a. $d = \$100$ per month.

a_n = amount student owes after n months

$$a_n = (1 + r) a_{n-1} - d$$

$$a_1 = 1.005 \underbrace{(10\ 000)}_{a_0} - 100$$

$$a_0 = 10\ 000 \quad \text{owed}$$